

Substitute the following claims for the prior claims appearing in the instant application.

1. (withdrawn) A method for improving the bond strength between at least two heat deformed thermoplastic sheets forming a unitary structure, the method comprising:
 - extruding a continuous web of thermoplastic having a top surface and a bottom surface;
 - conveying the continuous web of thermoplastic through a down-stream work station scuffing the top surface, wherein the top surface is characterized having increased surface area relative the bottom surface;
 - shearing the continuous web of thermoplastic providing a plurality of sheets having scuffed top surfaces;
 - thermoforming simultaneously at least a first sheet over a first mold and a second sheet over a second mold upon a machine frame; and
 - compressing a heated first sheet against a heated second sheet between the first mold and the second mold upon the machine frame to bond the scuffed top surface of the first sheet to the smooth surface of the second sheet.
2. (withdrawn) The method of claim 1 wherein three scuffed sheets are thermoformed simultaneously and compressed sequentially upon a machine frame to provide a unitary triple sheet structure.
3. (withdrawn) The method of claim 1 wherein the continuous web of thermoplastic is conveyed through at least one down-stream workstation whereby the top and bottom smooth surfaces of said continuous web are scuffed increasing the surface areas thereof.
4. (withdrawn) An article of the method of claim 3 characterized in that the article is a thermoformed plastic pallet.

5. (currently amended) An article made in accordance with the procedure comprising:

(a) extruding a continuous web of thermoplastic having a top surface and a bottom surface;

(b) conveying the continuous web of thermoplastic through a scuffing work station where after the top surface is characterized having increased surface area relative the bottom surface;

(c) shearing the continuous web of thermoplastic providing a plurality of sheets having scuffed top surfaces;

(d) heating a first sheet;

(e) forming the first sheet with a first mold;

(f) heating a second sheet;

(g) forming the second sheet with a second mold;

(h) aligning the first mold with the second mold so a scuffed top surface of the first sheet faces a bottom surface of the second sheet;

(i) moving the first mold toward the second mold; and

(j) joining together sections of the scuffed top surface of the first sheet with sections of the bottom surface of the second sheet to form a twin sheet subassembly;

~~(k) heating a third sheet;~~

~~—— (l) forming the third sheet with a third mold;~~

~~—— (m) aligning the third mold with the twin sheet subassembly;~~

~~—— (n) moving the twin sheet subassembly toward the third mold; and~~

~~—— (o) joining together sections of a scuffed top surface of the twin sheet subassembly with sections of the bottom surface of the third sheet to form a triple sheet article.~~

6. (original) An article made in accordance with claim 5 wherein the thermoplastic is composed of a polyolefin resin.

7. (currently amended) ~~A pallet~~ An article made in accordance with claim 5 ~~the method comprising:~~ wherein after step (j) the method further comprises:

~~(a) extruding a continuous web of thermoplastic having a top surface and a bottom surface;~~

~~(b) conveying the continuous web of thermoplastic through a scuffing work station where after the top surface is characterized having increased surface area relative the bottom surface;~~

~~(c) shearing the continuous web of thermoplastic providing a plurality of sheets having scuffed top surfaces;~~

~~(d) heating a first sheet;~~

~~(e) forming the first sheet with a first mold;~~

~~(f) heating a second sheet;~~

~~(g) forming the second sheet with a second mold;~~

~~(h) aligning the first mold with the second mold so a scuffed top surface of the first sheet faces a bottom surface of the second sheet;~~

~~(i) moving the first mold toward the second mold;~~

~~(j) joining together sections of the scuffed top surface of the first sheet with sections of the bottom surface of the second sheet to form a twin sheet subassembly;~~

(k) heating a third sheet;

(l) forming the third sheet with a third mold;

(m) aligning the third mold with the twin sheet subassembly;

(n) moving the twin sheet subassembly toward the third mold; and,

(o) joining together sections of a scuffed top surface of the twin sheet subassembly with sections of the bottom sheet of the third sheet to form a triple sheet ~~pallet~~ article.

8. (currently amended) ~~A pallet~~ An article made in accordance with claim 7 wherein at least one exposed surface of the ~~pallet~~ article is scuffed providing a high coefficient of friction ~~for a skid resistant surface~~.
9. (currently amended) ~~A pallet~~ An article made in accordance with claim 7 wherein after the step (e) a rigid member is ~~inserted into the machine frame from an external adjacent location for placement upon~~ positioned over the first sheet prior to the step (j) to form a rigidified twin sheet ~~subassembly~~.
10. (currently amended) ~~A pallet~~ An article made in accordance with claim 7 wherein after the step (j) a rigid member is ~~inserted into the machine frame from an external adjacent location for placement upon~~ positioned over the twin sheet ~~subassembly~~ prior to the step (o) to form a rigidified triple sheet ~~pallet article~~.
11. (currently amended) An article resistant to fire and the heat of fire, the article comprising:
- a first sheet of co-extruded thermoformable plastic, comprising a surface layer of an intumescent polyolefin composition resistant to fire and ~~an interior~~ substrate layer of a polyolefin resin, ~~provided in a co-extrusion construction~~ molded over a first mold to provide a first surface member;
 - a second sheet as in the first sheet molded over a second mold to provide a second surface member;
 - a third sheet of thermoformable member of molded plastic composed of ~~at least one layer~~ of polyolefin resin molded over a third mold to provide a rigid member comprising an array of upward extending ribs, an array of downward extending channels and between the ribs and channels hollow areas ~~containing~~ providing dead air space;

the third ~~sheet~~ member being compressed between the first and second ~~sheets upon a machine frame~~ members to provide a rigid unitary structure wherein upper surfaces of the ribs bond to the ~~interior~~ substrate layer of the first sheet and lower surfaces of the channels bond to the ~~interior~~ substrate layer of the second sheet;

the surface layers of the intumescent polyolefin compositions of the first and second sheets being exteriorly visible preventing the ~~interior~~ substrate layers of the first and second sheets from supporting a flame upon exposure to fire; and

the surface layers of the intumescent polyolefin compositions of the first and second sheets ~~and~~ in combination with the dead air space insulating the third ~~sheet~~ member, the insulated third ~~sheet~~ member resisting the heat of the fire to remain rigid.

12. (currently amended) An article as in claim 11 wherein the third ~~sheet~~ member includes additives imparting high temperature strength.

13. (currently amended) An article as in claim 11 wherein the article is an ~~industrial platform~~ a material handling apparatus.

14. (currently amended) An article as in claim 11 ~~wherein within said hollow areas resides~~ comprising a wireless communications device, the device being adapted to transmit an emergency signal to a remote monitoring station when said article is exposed to fire or the heat of fire.

15. (currently amended) A plastic pallet comprising:

~~a first surface developed to support a load, a second surface below the first surface communicating with a platform, and between the first surface and the second surface at least one hollow space;~~

~~within said hollow space~~ an electronic device, the electronic device comprising at least a wireless communicator interfacing with a remote station; thermographic instrumentation developed to monitor external temperature, and circuitry integrating the communicator to the instrumentation;

the thermographic instrumentation responding to variation in external temperature indicative of a fire by ~~alerting~~ actuating circuitry, the circuitry triggering communicator to send an emergency signal to the remote station, the remote station ~~alerting authorities to said~~ thereby being alerted to heat indicative of fire.

16. (currently amended) A plastic pallet as in claim 15 wherein the electronic device has at least one supply of power, the at least one supply of power being derived from ~~a primary power supply, said primary power supply being augmented by a secondary power supply, said secondary power supply being derived~~ from a solar battery positioned externally upon ~~one of said surfaces~~ a surface of said plastic pallet.

17. (currently amended) A plastic pallet as in claim 15 wherein the thermographic instrumentation includes a thermoscopic ~~probe~~ sensor, the ~~thermoscopic probe~~ sensor being exteriorly positioned to monitor temperature variation.

18. (currently amended) A plastic pallet as in claim 15 wherein the thermographic instrumentation includes ~~a thermoscopic probe, a solar battery and an RF transponder, the probe, battery and transponder being affixed~~ electronic device is mounted upon a plate for remote attachment to an external surface of the plastic pallet; and

~~wherein the electronic device further includes an RF receiver integrated to the wireless communicator, the RF receiver receiving communication from~~

~~the RF transponder having a solar battery supply of power when said thermoscopic probe is exposed to fire and the heat of fire.~~

19. (original) A fire resistant pallet comprising:
a pallet assembly; and
a fire resistant layer formed upon an exterior of said pallet assembly.
20. (original) The fire resistant pallet according to claim 19 wherein said pallet assembly is made of a polyolefin resin and wherein said fire resistant layer is made of an intumescent polyolefin material, said pallet assembly and said fire resistant layer being co-extruded.
21. (original) The fire resistant pallet according to claim 20 wherein said intumescent polyolefin material is disposed only on an exterior of said pallet assembly.
22. (currently amended) The fire resistant pallet according to claim 19 wherein said pallet assembly comprises:
a ~~thermoformed~~ pallet shell having a first shell half formed from a first ~~sheet member~~ and a second shell half formed from a second ~~sheet member~~;
and
a support structure ~~formed from a third sheet~~ disposed between and instantly fused to said first shell half and said second shell half to provide support to said ~~thermoformed~~ pallet shell, said support structure extending across a length of at least one of said first shell half and said second shell half, said support structure having an alternating cross-sectional shape such that said support structure is alternately fused to said first shell half and said second shell half.

23. (original) The fire resistant pallet according to claim 19 wherein said fire resistant layer comprises:

an intumescent polyolefin composition resistant to fire, said intumescent polyolefin composition being co-extruded with at least a portion of said pallet assembly.

24. (new) A fire resistant pallet comprising:

at least a first layer of moldable intumescent material and a second layer of moldable polyolefin material, the first and second layers being co-extruded together prior to being molded into said fire resistant pallet.

25. (new) The fire resistant pallet of claim 24 wherein the moldable intumescent material of the first layer contains a polyolefin molding resin suitable for co-extrusion with the moldable polyolefin material of the second layer.

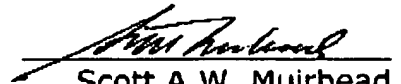
26. (new) A fire resistant pallet comprising:

a moldable mixture of intumescent materials comprising a polyethylene resin.

27. (new) The fire resistant pallet of claim 26 wherein the moldable mixture of intumescent materials in a sheet construction has a 4:1 draw ratio to form a deep leg pocket.

If the Office has any questions regarding this reply, or finds the response inadequate in any way, please contact your applicant as convenient.

Respectfully submitted,



Scott A.W. Muirhead

Applicant

16042 12th Ave

Surrey , British Columbia, V4A 7C9

Phone: 604 841-8762

FAX: 604 534-0549

Email: scott@stklc.com